mary lung mass. Sweets recently reported a case of a 3 cm right lower lung solitary nodule in a 21-year-old asymptomatic male. Isotope scanning of the lung and selective pulmonary arteriography were of no diagnostic value, and at thoracotomy the lesion was well encapsulated and completely resectable.

As a rule, these lesions are totally asymptomatic, fortuitously discovered, and histologically completely benign.

Reviewing the literature of all known reported lesions, Sweet noted they characteristically are slow in growth and infrequently calcified. They may be endobronchial or intraparenchymal.

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Frequency of Urinary Tract Abnormalities in Sickle Cell Disease

Renal medullary structural damage from sickling with stasis and infarction often results in bilateral caliectasis and poor concentration of contrast media by the kidney (isosthenuria).

Caliectasis not related to the presence or the absence of urinary tract symptoms was found in 7 of 17 cases. No cases of unequivocal renal papillary necrosis were found. Intravenous drip technique provides decidedly improved opacification of the renal collecting system and should be utilized routinely in patients with sickle cell disease.

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Rapid Sequence IVP in Hypertension

A simple modification of the routine intravenous pyelogram has found universal acceptance in the examination of patients suspected of having renovascular hypertension. The modification consists of the inclusion of several time-spaced films of the kidneys within the first several minutes after the rapid injection of the pyelographic medium. Particular features searched for on such hypertension pyelograms are differences in the size of the kidneys, their calyces, and the appearance time and concentration of the excreted opaque. False positive and false negative results occur, and there are screening procedures that are said to be more accurate. However, the simplicity of the rapid sequence IVP and its universal availability continue to make it the most widely used radiologic screening procedure in the examination of unexplained hypertension.

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Radionuclide Studies of Pulmonary Ventilation and Perfusion

A complete evaluation of regional lung function should include examination of both the distribution of air throughout the lungs as well as the perfusion of blood to the lungs. By using modern radionuclide imaging techniques, alterations in the normal patterns of regional ventilation and perfusion often can be demonstrated before pathologic changes are recognized on standard chest radiography.

Radionuclide studies of lung perfusion can be accomplished either by injecting radioactive labeled particles (10 to 60 microns) intravenously or by a more central injection of a radioactive inert gas such as xenon-133 dissolved in saline solution. The resulting image of the distribution of these materials in the lung, as recorded with a device such as the scintillation camera, indicates the relative regional perfusion of blood. Regional ventilation is evaluated by having the patient breath a mixture of air containing a small quantity of xenon-133 gas. Comparison of the perfusion lung scan, or picture of blood flow, with the image of ventilation permits effective study of early changes associated with almost all types of pulmonary disorders. These techniques have been most valuable in patients suspected of having pulmonary embolization, chronic bronchitis, emphy-